What we claim and desire to secure by Letters Patent is:

1. A fluid conveying tube for vehicle coolers, which on its inside comprises first and second opposite longitudinal primary heat exchange surfaces, and flow-directing surface structures which are arranged on the primary surfaces and which each comprise a plurality of elongate directing elements projecting from the primary surfaces, the surface structures being alternatingly arranged on the first and second primary surfaces in such manner that directing elements, succeeding in the longitudinal direction of the primary surfaces, are alternatingly arranged on the first and second primary surfaces and are mutually inclined at a given angle (γ), wherein each surface structure comprises a laterally extending first row of mutually parallel directing elements.

2. A fluid conveying tube as claimed in claim 1, wherein at least one end of each directing element in said surface structure is arranged, seen in the longitudinal direction of the primary surfaces, essentially in alignment with one end of another directing element in said surface structure.

3. A fluid conveying tube as claimed in claim 1, wherein each surface structure comprises a laterally extending second row of mutually parallel directing elements, the directing elements of the second row being arranged at said angle (γ) relative to the directing elements of the first row.

4. A fluid conveying tube as claimed in claim 3, wherein at least one end of each directing element of the first row is arranged, seen in the longitudinal direction of the primary surfaces, essentially in alignment with one end of an associated directing element of the second row.

5. A fluid conveying tube as claimed in claim 3, wherein the directing elements are laterally relatively offset in the first and second rows.

6. A fluid conveying tube as claimed in claim 4, wherein the directing elements are laterally relatively offset in the first and second rows.

7. A fluid conveying tube as claimed in claim 1, wherein said angle (γ) is about 20-100°, preferably about 30-90°, and most advantageously about 90°.

8. A fluid conveying tube as claimed in claim 1, wherein said row or rows extend perpendicularly to the longitudinal direction of the primary surfaces.

9. A fluid conveying tube as claimed in claim 1, which is designed to be passed by a liquid, wherein the centre-to-centre distance between directing elements succeeding in said longitudinal direction is about 10-40, and preferably about 15-35, times as large as the height of the directing elements perpendicularly to the primary surfaces.

10. A fluid conveying tube as claimed in claim 1, which is designed to be passed by a gas, wherein the centre-to-centre distance between directing elements succeeding in said longitudinal direction is about 25-65, preferably about 30-55, times as large as the height of the directing elements perpendicularly to the primary surfaces.

11. A fluid conveying tube as claimed claim 1, wherein each elongate directing element has a length which is about 4-14 times as large as its height perpendicularly to said primary surface.

12. A fluid conveying tube as claimed in claim 1, wherein the distance between said primary surfaces is at least about 2.5 times as large as the height of the directing elements perpendicularly to said primary surfaces.

13. A fluid conveying tube as claimed in claim 1, wherein said surface structures are arranged and designed to form a number of parallel flow paths which extend through the tube and in each of which a swirling motion about a respective axis extending in said longitudinal direction is imparted to a fluid flowing through the tube.

14. A vehicle cooler comprising a heat exchanger assembly and at least one tank connected to the heat exchanger assembly, wherein the heat exchanger assembly comprises fluid conveying tubes according to any one of claims 1-13 and surface-enlarging means arranged between the tubes.